CLAIMS

1. An isolated compound comprising at least one aminoacid sequence that is at least 80% identical over its entire length to an aminoacid sequence chosen among the group consisting of the SEQ ID N°2, SEQ ID N°4, SEQ ID N°5, SEQ ID N°6, the aminoacid sequences of any immunogenic fragment thereof, and the SEQ ID N°7 sequence.

2. An isolated compound comprising at least one polynucleotidic sequence that is at least 80% identical over its entire length to a polynucleotidic sequence chosen among the group consisting of the SEQ ID N°1, SEQ ID N°10, SEQ ID N°12, SEQ ID N°13 polynucleotidic sequences, and the polynucleotidic sequences which encode according to the universal genetic code, and taking into account its redundancy, the SEQ ID N°2, SEQ ID N°4, SEQ ID N°5, SEQ ID N°6 sequences, the aminoacid sequences of any immunogenic fragment of SEQ ID N°2, SEQ ID N°4, SEQ ID N°5, SEQ ID N°6 sequences, and the SEQ ID N°7 aminoacid sequence.

3. A polynucleotidic compound chosen among the group consisting of the (SEQ ID N°8 ; SEQ ID N°9) couple, the (SEQ ID N°8 ; SEQ ID N°9) couple, the SEQ ID N°10 polynucleotide, the SEQ ID N°12 polynucleotide.

4. A composition of the antiserum type which is such as obtained by immunizing a mammalian with at least one isolated compound according to claim 1, this at least one compound being optionally coupled to an immunogenicity enhancer, and collecting the antiserum thus produced.

5. An isolated antibody directed against at least isolated compound according to claim1.

6. An isolated monoclonal antibody directed against at least one isolated compound according to claim 1.

7. An isolated immuno-reactive fragment of an antibody chosen among the group consisting of the isolated antibodies according to claim 5, and the isolated monoclonal antibodies according to claim 6.

8. An isolated antibody that is directed against at least one isolated compound according to claim 1, and that does not bind to any T cell surface molecule, nor to any B cell surface molecule.

9. An isolated antibody that is directed against at least one isolated compound according to claim 1, and that can induce an increase of at least 5 times in the natural cytotoxicity triggered by a NK cell placed in the presence of a target cell in a 1:1 ratio.

10. A solid support onto which is attached at least one isolated antibody that is directed against at least one isolated compound according to claim 1.

11. A hybridoma that produces a monoclonal antibody that is directed against at least one isolated compound according to claim 1.

12. A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

- contacting the biological sample with at least one object chosen among the group consisting of the antiserum-type compositions according to claim 4, the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11 under conditions appropriate for immune complex formation, and

- detecting or quantifying the immune complexes thus formed.

13. A method for detecting or quantifying the presence of NK cells in a biological sample, comprising:

- contacting the biological sample with at least one product chosen among the group consisting of the isolated compounds according to claim 2, the polynucleotidic compounds according to claim 3, under conditions appropriate for the formation of polynucleotide hybridation products, and

- detecting or quantifying the hybridation products thus formed.

14. A method for the selective removal of NK cells from a biological sample, comprising:

- contacting the biological sample with at least one object chosen among the group consisting of the antiserum-type compositions according to claim 4, the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11, and

- removing the immune complexes thus formed.

15. A method for the positive and selective purification NK cells from a biological sample, comprising:

- contacting the biological sample with at least one object chosen among the group consisting of the antiserum/type compositions according to claim 4, the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas according to claim 11, and

- recovering the cells from the immune complexes thus formed.

16. A kit for detecting, quantifying, removing and/or positively purifying NK cells from a biological sample

comprising at least one object chosen among the group consisting of the antiserum-type compositions according to claim 4, the isolated antibodies according to claim 5, 6, 8, 9, the isolated immuno-reactive fragments according to claim 7, the solid supports according to claim 10, the hydridomas

according to claim 11, the isolated compounds according to claim 2, the polynucleotidic compounds according to claim 3,

said object being enclosed in a container.

17. A method for stimulating NK cell cytotoxicity, comprising:

contacting said NK cells under physiological conditions with at least one product chosen among the group consisting of the antiserum-type composition according to claim 4, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11.

18. A kit for stimulating NK cell cytotoxicity, comprising:

at least one product chosen among the group consisting of the antiserum-type compositions according to claim 4, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11.

said at least one product being enclosed in a container.

19. A method for inhibiting NK cell cytotoxicity, comprising:

contacting said NK cells under physiological conditions with at least one product chosen among the group consisting of the immuno-reactive fragments according to claim 7 and the compounds capable of inhibiting the interactions between NKp30 transmembrane region and CD3ζ.

20. A grafting method comprising contacting an organism chosen among the group consisting of a cell to be grafted, a tissue to be grafted, an organ to be grafted, and the host organism with at least one product chosen among the group consisting of:

the antiserum-type compositions according to claim 4, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11, the NK cells purified from the graft donor

via the method according to claim 15, the NK cells of which cytotoxicity has been stimulated *via* the method according to claim 17.

21. A pharmaceutical composition comprising at least one product chosen among the group consisting of:

the antiserum-type compositions according to claim 4, the isolated antibodies according to claims 5, 6, 8, 9, the solid supports according to claim 10, the hybridomas according to claim 11, the isolated NK cells purified from the graft donor *via* the method according to claim 15, the isolated NK cells of which cytotoxicity has been stimulated *via* the method according to claim 17, together with

a pharmaceutically acceptable vehicle.

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